AMENDMENTS TO THE CLAIMS*

1. (previously cancelled)
2. (previously cancelled)
3. (previously cancelled)
4. (previously cancelled)
5. (previously cancelled)
6. (previously cancelled)
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10. (previously cancelled)
11. (previously cancelled)
12. (previously cancelled)
13. (previously cancelled)
14. (previously cancelled)

15. (currently amended) A method for enhancing nucleic acid hybridization [in a device having one or a plurality of microlocation(s), each microlocation comprising a nucleic acid probe present on a substrate], said method comprising the steps of:

providing a substrate, said substrate comprising one or a plurality of microlocation(s), each microlocation comprising a DNA probe present on said substrate;

providing a buffer present on or surrounding said microlocation(s);

providing two or more electrodes adapted to receive charge, said two or more electrodes being separated from one another, from said microlocation(s) and from said buffer, but appropriately positioned so as to create an electric field in said microlocation(s) without creating current flow in said microlocation(s) when said two or more electrodes receive charge;

providing an electrical source operatively associated with the electrodes for providing charge to said electrodes;

[(a)]applying a sample comprising [one or more nucleic acids] DNA to said microlocation(s); and
[(b)]applying charge to said [device]electrodes [to produce an electric field at said microlocation(s) without creating current flow in said microlocation(s), and] such that said [one or more nucleic acids are] DNA sample is transported to said [nucleic acid] DNA probes present at said microlocation(s) under conditions sufficient for hybridization to occur.

16. (originally presented) The method of claim **15**, wherein said microlocation(s) comprise a porous media.

17. (currently amended) The method of claim **15**, which comprises the further step [(c)] of applying charge to said [device] electrodes [to produce an electric field at said microlocation(s) without creating current flow in said microlocation(s), and] such that [said one or more nucleic acids] at least one DNA component corresponding to said DNA sample that [are] is not hybridized with said [nucleic acid] DNA probes [are] is transported away from said [nucleic acid] DNA probes at said microlocation(s).

18. (currently amended) The method of claim **17**, wherein the steps of:
applying charge to said electrodes such that said DNA sample is transported to said DNA probes present at said microlocation(s) under conditions sufficient for hybridization to occur; and
applying charge to said electrodes such that at least one DNA component corresponding to said DNA sample that is not hybridized with said DNA probes is transported away from said DNA probes at said microlocation(s);
[(b) and (c)] are repeated at least once.

19. (currently amended) The method of claim **15**, said device comprises a plurality of microlocations, wherein said microlocations each comprise a [nucleic acid] DNA probe having known binding characteristics, and wherein the [nucleic acid] DNA probe present at one microlocation differs from the [nucleic acid] DNA probe present at other microlocations in a known and predetermined manner.

20. (previously cancelled)

21. (currently amended) The method of claim 15, wherein charge is applied to said [device] electrodes in such a way as to produce a stirring or mixing motion, or cause a rotational motion at said microlocation(s).

22. (currently amended) A method for enhancing nucleic acid hybridization [in a device having one or a plurality of microlocation(s) present on a substrate, each microlocation comprising a nucleic acid probe], said method comprising the steps of:
providing a substrate, said substrate comprising one or a plurality of microlocation(s), each microlocation comprising a DNA probe present on said substrate;
providing a buffer present on or surrounding said microlocation(s);
providing two or more electrodes adapted to receive charge, said two or more electrodes being separated from one another, from said microlocation(s) and from said buffer, but appropriately positioned so as to create an electric field in said microlocation(s) without creating current flow in said microlocation(s) when said two or more electrodes receive charge;
providing an electrical source operatively associated with the electrodes for providing charge to said electrodes;
[(a)]applying a sample comprising [one or more nucleic acids] DNA to said microlocation(s);
[(b)]applying charge to said [device] electrodes [to produce an electric field at said microlocation(s) without creating current flow in said microlocation(s), and] such that said [one or more nucleic acids are] DNA sample is transported to said [nucleic acid] DNA probes at said microlocation(s) under conditions sufficient for hybridization to occur; and
[(c)]applying charge to said [device] electrodes [to produce an electric field at said microlocation(s) without creating current flow in said microlocation(s), and] such that [said one or more nucleic acids] at least one DNA component corresponding to said DNA sample that [are] is not hybridized with said [nucleic acid] DNA probes [are] is transported away from said [nucleic acid] DNA probes at said microlocation(s).

23. (currently amended) The method of claim **22**, wherein the steps of:
applying charge to said electrodes such that said DNA sample is transported to said DNA probes present at said microlocation(s) under conditions sufficient for hybridization to occur; and
applying charge to said electrodes such that at least one DNA component corresponding to said DNA sample that is not hybridized with said DNA probes is transported away from said DNA probes at said microlocation(s);
[(b) and (c)]are repeated at least once.

24. (currently amended) The method of claim **22**, [said device comprising a plurality of microlocations,]wherein said microlocations each comprise a [nucleic acid] DNA probe having known binding characteristics, and wherein the [nucleic acid] DNA probe present at one microlocation differs from the [nucleic acid] DNA probe present at other microlocations in a known and predetermined manner.

25. (previously cancelled)

26. (originally presented) The method of claim **22**, wherein said microlocation(s) comprise a porous media.

27. (currently amended) The method of claim **22**, wherein charge is applied to said [device] electrodes in such a way as to produce a stirring or mixing motion, or cause a rotational motion at said microlocation(s).

28. (currently cancelled)

* *The preceding claims and the formatting of this Response & Amendment have been presented in accordance with the proposed revisions to 37 CFR § 1.121, which the office plans to adopt by July 2003.*